ABSTRACT

The object of the present invention is to provide a gas sensor in which a gas detection element is mounted on a wiring substrate; in which a protective cap having gas inlets formed therein is attached to the wiring substrate; and which has a structure capable of effectively preventing emanation of gas from the wiring substrate and the protective cap. A gas sensor comprises a gas detecting element on a writing board where a protective cap with air vents is mounted. The sensor effectively prevents a gas from emanating from the wiring board and the protective cap. The wiring board where a plurality of gas detecting elements(8,9) are to be mounted is formed of a ceramic wiring board(2) excellent in heat resistance. The protective cap(3) having air vents(31 to 39) is formed of a metal excellent in heat resistance. The metal protective cap(3) is fitted to the ceramic wiring board(2) instead of using adhesive. In this way a gas sensor(1) is manufactured. Adoption of such a structure enables suppression of the gas emission from the ceramic wiring board(2) and the metal protective cap(3) effectively during the manufacturing step or in use of the gas sensor(1) attached to a car, thereby preventing lowering of the gas detection accuracy or early deterioration of the gas detecting elements(8,9)